MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2022/2023 (TERM ID 2220)

BAC3684 – SECURITIES, INVESTMENTS AND PORTFOLIO MANAGEMENT

(All Sections/Groups)

8 JULY 2023
09.00a.m–12.00p.m
(3 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 4 pages with 4 questions only.
2. Attempt **ALL** questions. All questions carry equal marks and the distribution of the marks for each question is given.
3. Please write all your answers in the Answer Booklet provided.

QUESTION 1

Mr. Robert Tan, a research analyst with RHB Securities, has forecasted the following outcomes for Stock AMWAY (Code: 6351) and Stock MRDIY (Code: 5296). He plans to invest these stocks for his client's portfolio and attempts to serve the best service to his client. Therefore, he looks forward to:
Show all your working steps.

State of Economy	Probability of State of Economy	Rate of Return on **Stock AMWAY (Code: 6351)**	Rate of Return on **Stock MRDIY (Code: 5296)**
Recession	0.15	-0.20	0.30
Normal	0.60	-0.10	0.20
Boom	0.25	0.70	0.50

A. Calculate the expected returns for both stocks.

(5 marks)

B. Compute the standard deviation for Stock AMWAY and Stock MRDIY.

(5 marks)

C. Mr. Syafiq is a client of Mr. Robert Tan. Recently, Mr. Syafiq has RM200,000 and invests RM60,000 in Stock AMWAY and the remainder in Stock MRDIY. Mr. Robert Tan is required to calculate the expected return of his client's portfolio. What is the expected return of the portfolio?

(4.5 marks)

D. At the same time, Mr. Robert Tan must know the covariance and correlation between Stock AMWAY and Stock MRDIY. What are the values of the covariance and correlation between the two stocks?

(6 marks)

E. Mr. Robert Tan is also required to compute the standard deviation of the portfolio. What is the standard deviation of the portfolio?

(2.5 marks)

F. If Mr. Syafiq is a risk-averse investor who could invest his money either in Stock AMWAY or Stock MRDIY only, or the portfolio as in parts (C), (D) and (E) above, which alternative should Mr. Robert Tan recommend to him to select? Justify your answer.

(2 marks)

(Total: 25 marks)

Continued ...

QUESTION 2

A. Jonathan does not believe in the diversification effect as proposed by the portfolio theory. He believes in the "All eggs in one basket" approach and invest all his cash in only one Stock. The beta of this stock is 0.5. He concludes that his investment is half as risky as the market as a whole. Is he correct? Explain your answer.

(9 marks)

B. Suppose a technical analyst or chartist, who specializes in a number of stocks of public-listed companies, made a RM100,000 profit on an investment of RM20,000 after one month of trading, and the following months more abnormal profits were earned. Explain whether the market is efficient assuming that the efficient market hypothesis holds.

(6 marks)

C. Mr. Johny decides to buy Stock KLK (Code: 2445) from Bursa Malaysia in Malaysia. During analysing Stock KLK of Kuala Lumpur Kepong Berhad, he obtains the data for Kuala Lumpur Kepong Berhad as follows. Currently, he must determine the performance of Stock KLK between 2018 and 2022 by:

Year	Calendar-Year Dividends (RM)	End-of-Year Price (RM)	Total Return (%)
2017	3.88	75.50	12.80
2018	2.45	65.80	-06.20
2019	2.45	69.75	10.70
2020	2.45	53.20	-11.20
2021	2.45	56.60	65.80
2022	4.10	98.60	31.80

I. Calculating the arithmetic mean.

(5 marks)

II. Computing the geometric mean.

(5 marks)

(Total: 25 marks)

Continued ...

QUESTION 3

A. Joshua invests in a stock with a share price of RM25. After one year, the share price increases to RM35. Each share paid a RM2 dividend. Compute the following:

I. Dividend yield

(2 marks)

II. Capital gain yield

(2 marks)

III. Total return from investment in the stock

(2 marks)

B. Many investors want to make intelligent judgments about the current state of the financial markets as well as changes that have a high probability of occurring in the future.
Explain the past relationship between stock prices, corporate profits and interest rate that can influence to investors' decision making.

(6 marks)

C. The important point of the Porter analysis is that industry structure is a function of industry profitability. Agree or disagree with this statement.

(7 marks)

D. VSTECS Berhad's stock is currently trading for RM5.20 per share. You expect the company to pay a dividend next year of RM0.15, in year 2 of RM0.16 and in year 3 of RM0.17. If you expect VSTECS's stock to sell for RM6 in three years and the required rate of return is 9%, is the stock undervalued or overvalued? Explain your answer.

(6 marks)

(Total: 25 marks)

Continued ...

QUESTION 4

A. Following her investment plan, Fiona decided to invest some money in corporate bonds. After receiving advice from her financial planner friend, Lily, she bought some units of bonds from Genting Berhad. The bond has a par value of RM100 per unit and a coupon interest of 7%. The bond can be redeemed in 10 years at the par value. Fiona's required rate of return from the bond investment is 6%. Compute the bond price if:

I. The coupon interest is payable on an annual basis.

(3 marks)

II. The coupon interest is increased to 8% and payable on a semi-annual basis.

(3 marks)

III. Based on part (II), if an investor offers to buy Fiona's bonds at RM100 for each unit, what is your advice to Fiona?

(3 marks)

B. As you complete your study of how to select and analyse common stocks, you decide you should take a look at technical analysis as recommended by your peers. Discuss the role volume data does play in technical analysis.

(4 marks)

C. You are holding treasury bonds which you purchased at RM76 a few months ago. You are worried that interest rates will rise in the next three months and wish to protect your investment.
If you want to hedge your position using treasury bond futures contract, what should you do? Justify your answer.

(2 marks)

D. Suppose Michael bought MAS shares at RM40 last month. This month he sold a call option at RM4 with an exercise price of RM50. Calculate his profit when the share price is RM50.

(5 marks)

E. Ms. Nyonya bought YTL shares at RM30 last month. This month she bought a put option at RM2 with an exercise price of RM40. Calculate her profit when the share price is RM60.

(5 marks)

(Total: 25 marks)

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